

be constrained in order for the device to be rendered operable and consistent with the claimed limitation. These assertions are unfounded for the following reasons.

First, whether or not a claim limitation is always true or not is not germane to the clarity of the limitation. Second, the Examiner's assertion that the incident angle of the light must be constrained in order for the device to be rendered operable is incorrect. As disclosed in the instant application, the refractive index of the overcoat is adjusted (i.e., selected) such that the refracted light is perpendicular to a surface of the cholesteric liquid crystal color filter. Because the surface of the CLC color filter comprises a plurality of the protrusions, the refractive index of the overcoat layer can be selected such that in combination with the size and distribution of the protrusions the incident light is refracted perpendicular to a surface even with varying incident angles. Therefore, constraint of the incident angle is not required to render the device operable. Accordingly, the subject limitation is clear to one skilled in the art. Therefore, Applicant respectfully requests reconsideration and withdrawal of the objection to claims 1, 6 and 10.

On page 2 of the Action, the Examiner rejects claim 9 under 35 U.S.C. §112, first paragraph, as allegedly being based on a disclosure which is not enabling. More specifically, the Examiner states: "[p]er Applicant's enabling disclosure [0031-0033], an overcoat has to have a refractive index that is different from that of the cholesteric liquid crystal color filter in order to diffuse light, critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure..."

The examiner posits that only the overcoat layer diffuses light. However, as discussed in paragraph 0031 of the instant application, "[t]he curved protrusions of the cholesteric liquid crystal (CLC) color filter 140 are for obtaining a uniform luminance regardless of the viewing angle by diffusing light..." Accordingly, the CLC color filter according to the present invention

diffuses light even without the overcoat layer. Therefore, the specification clearly enables claim 9, and Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 9 under 35 U.S.C. 112, first paragraph.

On page 4 of the Action, the Examiner rejects claims 1-5, 8 and 9 under 35 U.S.C. §103(a) as allegedly being unpatentable over Applicant's Related Art ("ARA") in view of U. S. Patent No. 5,305,129 to Fujiwara et al. ("Fujiwara"), further in view of U.S. Patent No. 5,963,284 to Jones et al. ("Jones"). Applicant respectfully traverses this rejection.

In order to support a rejection under 35 U.S.C. §103, the Action must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some motivation to combine the applied references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. Claims 1-5, 8 and 9 are not rendered unpatentable by the combination of ARA, Fujiwara and Jones because the Action fails to establish a *prima facie* case of obviousness as discussed below.

Independent claim 1 defines a reflective cholesteric liquid crystal display device. The CLC display device includes, *inter alia*, a cholesteric liquid crystal color filter on an absorption layer, the CLC color filter having a plurality of protrusions, and an overcoat layer on the CLC color filter, the refractive index of the overcoat layer being selected to make incident light be perpendicular to a surface of the CLC color filter.

In rejecting claim 1, the Examiner asserts that the combination of ARA, Fujiwara and Jones discloses a CLC display device as claimed in as much as ARA discloses a CLC display device and Jones discloses a display device comprising a light diffusing layer including a host material and a plurality of diffusing particles embedded in the host material. This assertion is unfounded for the following reason.

The light diffusing layer of Jones is not a cholesteric liquid crystal color filter on an absorption layer as recited in claim 1. Furthermore, nowhere in Jones is there any disclosure or suggestion of a cholesteric liquid crystal color filter much less a CLC color filter comprising a plurality of protrusions as claimed.

Since ARA, Fujiwara and Jones each fail to disclose or suggest a CLC display device that includes a plurality of protrusions, and an overcoat layer on the CLC color filter, the refractive index of the overcoat layer being selected to make incident light be perpendicular to a surface of the CLC color filter as claimed, the combination of these three references cannot possibly disclose or suggest said feature. Therefore, even if one skilled in the art were motivated to combine ARA, Fujiwara and Jones, as suggested by the Office Action, the combination would still fail to render claim 1 unpatentable for at least the reason that the combination fails to disclose each and every claimed feature.

Independent claim 9 defines a liquid crystal display device that includes, *inter alia*, a cholesteric liquid crystal layer on an absorption layer, the CLC layer having a plurality of protrusions. Accordingly, independent claim 9 is patentably distinguishable over the combination of ARA, Fujiwara and Jones for at least those reasons presented above with respect to claim 1.

Claims 2-5 and 8 depend from independent claim 1. Therefore, claims 1-5 and 8 are patentably distinguishable over the combination of ARA, Fujiwara and Jones for at least those reasons presented above with respect to claim 1. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-5, 8 and 9 under 35 U.S.C. §103(a).

On page 7 of the Action, the Examiner rejects claims 6, 7 and 10-14 under 35 U.S.C. §103(a) as allegedly being unpatentable over APA in view of Fujiwara, further in view of Jones. Applicant respectfully traverses this rejection.

Independent claim 6 defines a method of manufacturing a lower substrate for a reflective CLC display device. The method includes, *inter alia*, forming a cholesteric liquid crystal color filter over an absorption layer, the CLC color filter having a plurality of protrusions, and forming an overcoat layer on the CLC color filter, the refractive index of the overcoat layer being selected such that the refracted light is perpendicular to a surface of the CLC color filter. Likewise, independent claim 10 defines a method of forming a reflective liquid crystal device that includes, *inter alia*, patterning a cholesteric liquid crystal layer using a photo resist as a mask to form a plurality of protrusions on the CLC layer, and providing an overcoat layer over the protrusions and the CLC layer to form a substantially even surface.

Independent claim 6 and 10 are patentably distinguishable over the combination of ARA, Fujiwara and Jones for at least the reason that the combination fails to disclose or suggest each and every claimed element. (See discussion above with regard to claim 1). Furthermore, claims 7 and 11-14 variously depend from claims 6 and 10. Therefore, claims 7 and 11-14 are patentably distinguishable over the combination of ARA, Fujiwara and Jones for at least those reasons presented above with respect to claims 6 and 10. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 6, 7 and 10-14 under 35 U.S.C. §103(a).

In view of the above, each of the presently pending claims in this application are in condition for allowance. Notice of same is earnestly solicited. Should the Examiner have any questions regarding the application, the Examiner is invited to call the undersigned at the telephone number provided below.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the

filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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